

LITHOSTAR Multiline

SP

System Manual

Repair Instructions

Replacement of Operating PC

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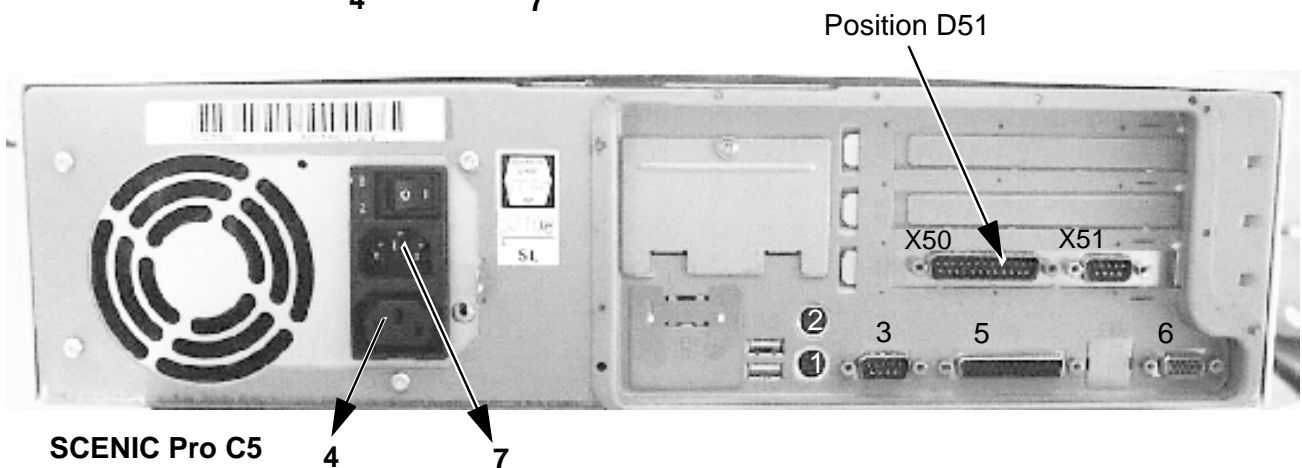
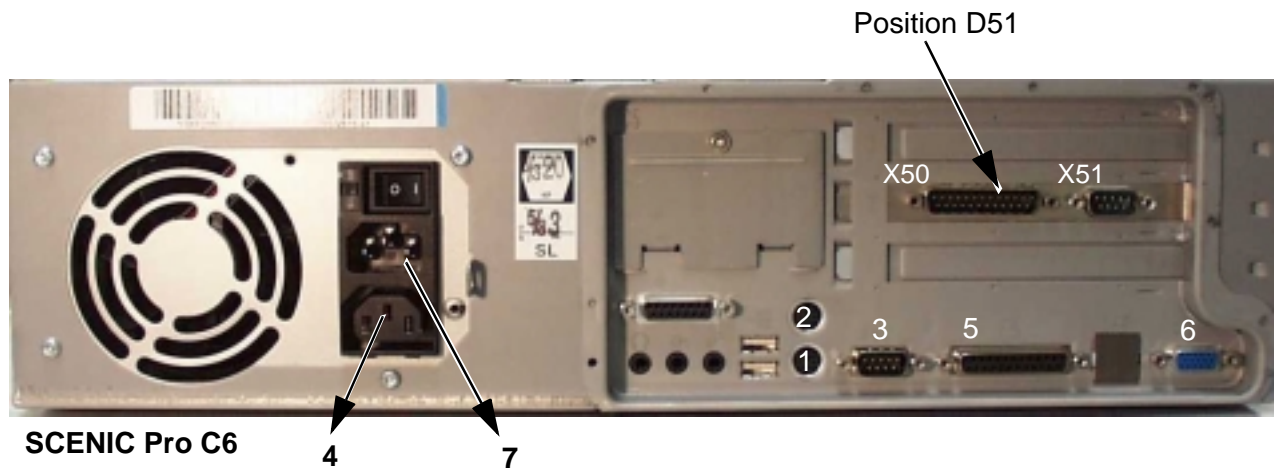
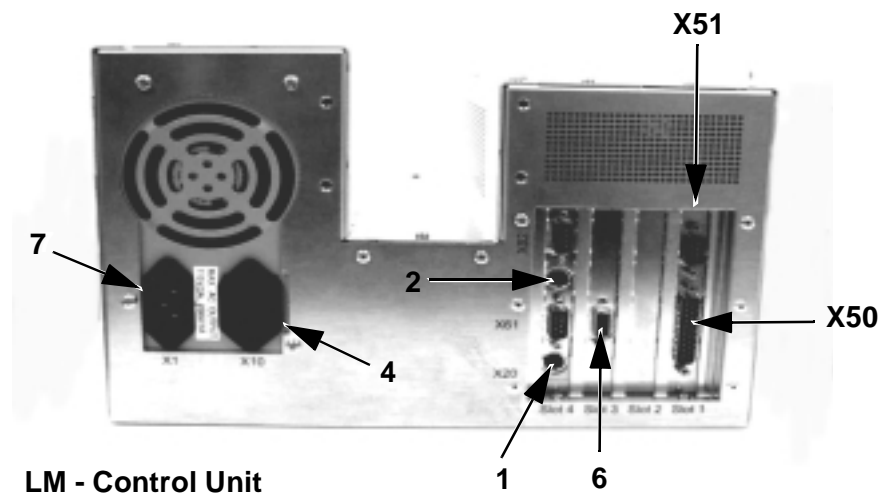
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Rear view of the operating PC



- | | | |
|--------------------------------|------------------------|-------------------------------------|
| 1 Keyboard port | 5 Parallel interface | X50 Respirator-ECG signal interface |
| 2 Mouse port | 6 Monitor port | X51 DUEP port |
| 3 Serial interface COM 1 | 7 Power line connector | |
| 4 Monitor power line connector | | |

- Switch the system **OFF**.
- Place the new operating PC in the drawer of the system control console.
- Connect the following cables to the operating PC:
 - line voltage cable for operating PC
 - line voltage cable for monitor
 - signal cable for monitor
 - signal cable for mouse
 - signal cable for keyboard
- Switch the system **ON**.
The green LED on the operating PC must light up.
- On the operating PC.

SCENIC Pro C5 / C6

⇒ the following message appears:
"MS-DOS 6.2 Startup Menü"

- use the down arrow key "↓" to select
"2. PC neu starten oder manuell
ausschalten"
- Switch the system **OFF**.
- Insert the boot disk in drive A of the operating PC.

NOTICE

**German texts will appear during the installation of the software
→ This is due to the German operating system.**

- Switch the system **ON**.

```
User-Terminal-Software Installation?  
No:      Press [ Ctrl ] + [ C ]  
YES:     Press any key, to continue  
Eine beliebige Taste drücken, um fortzusetzen.
```

- If the keyboard is replaced, the User Terminal software must be reinstalled.
Answer accordingly.

- After a few moments, the following command appears:

```
Hard-Disk will be formatted!  
Please wait 5 sec. for next message and press "J" and [ ENTER ]!  
  
WARNUNG!      Alle Daten auf der Festplatte in Laufwerk C:  
              werden gelöscht!  
              Formatieren durchführen (J/N)?
```

- Press the "J" key and then "Enter/Entrée".
- The command to enter the type of keyboard appears:

```
Enter keyboard type:  
  
E:   englisch (international) keyboard  
F:   french keyboard  
  
Press "E" or "F" according to keyboard type and press [ ENTER ]:
```

- Select either "E" or "F", depending on the type of keyboard, and press "ENTER"/"Entrée".
- After a few moments, the following command appears:

```
Please insert "Backup-Disk 01... 05" (Sicherungsdiskette 01... 05)!  
Press any key, to continue!  
  
Sicherungsdiskette 01 in Laufwerk A: einlegen  
Eine beliebige Taste drücken, um fortzusetzen
```

- Remove the boot disk from drive A.
- Insert the backup disk 01 in drive A.
- Press any key.
- When the system finishes loading backup disk 01, the following command appears:

```
Sicherungsdiskette 02 in Laufwerk A: einlegen  
Eine beliebige Taste drücken, um fortzusetzen
```

- Remove backup disk 01 from drive A.
- Insert backup disk 02 in drive A.
- Repeat the same procedure for the remaining backup disks.
- Once all the backup disks have been loaded, the following message appears:

```
Please insert disk: "User-Interface-SW"!  
  
Press any key, to continue!  
Eine beliebige Taste drücken, um fortzusetzen
```

- Remove backup disk 05 from drive A.
- Insert the User Interface SW disk in drive A.

- After a few moments, the following command appears:

Please insert "Status-Disk"!

Press any key, to continue!

Eine beliebige Taste drücken, um fortzusetzen

- Remove the User Interface SW disk from drive A.
- Insert the Status disk in drive A.

CAUTION

Do not activate the write protection on the diskette, since data must be written onto it.

- After a few moments, the following command appears:

Please insert "BOOT-Disk" again!

Press any key, to continue!

Eine beliebige Taste drücken, um fortzusetzen

- Remove the Status disk from drive A.
- Insert the boot disk in drive A.
- After a few moments, the following command appears:

*****A T T E N T I O N : I M P O R T A N T N O T E ! *****

Modify CMOS-SETUP according to service-manual!

- CMOS-Setup-Lock by Password
- Disable Disk-Controller

See instructions!

Please remove disk!

Now, switch off the PC and turn it on again for CMOS-Setup-Modify!

Thank you!

- Switch the system **OFF**.
- Remove the boot disk from drive A.
- For the additional steps required, refer to the chapter which corresponds to the operating PC being used.

Mechanical changes in the control console

- Especially in the case of the SCENIC Pro C5: operating PC
 - Replace the existing ground conductor in the control console by the longer one from the conversion kit 47 83 416.
 - Connect the cable for the DUEP connection X51 and fasten firmly on the top of the connector bracket using the clip from the conversion kit.
 - Place the wooden console from the conversion kit 47 83 416 on the drawer.
 - Place the operating PC on the wooden console.
- When the message "Press F2 to enter SETUP" appears, press the "F2" key. The CMOS setup menu appears.
- Select the "Main" menu using the ← → cursor keys.
- In the "Main" menu, use the ↑ ↓ cursor keys to select the submenu "Boot Option".
- Press the "ENTER" key; use "Entrée" on the French keyboard.
- Set the "Post Errors" menu to "No Halt on Any Errors" using the +/- keys (numeric keypad).
- Select the "Fast Boot" menu using the ↑ ↓ cursor keys.
- Set the "Fast Boot" menu to "Enabled" using the +/- keys (numeric keypad).
- Select the "Quiet Boot" menu using the ↑ ↓ cursor keys.
- Set the "Quiet Boot" menu to "Enabled" using the +/- keys (numeric keypad).
- Select the "Boot Sequence:1." menu using the ↑ ↓ cursor keys.
- Set the "Boot Sequence: 1." menu to the hard disk using the "-" key (numeric keypad). (the hard disk is 1; the diskette is 2).
- Press the "Esc" key; use the "Echap" key on the French keyboard.
- Select the "Advanced" menu using the ← → cursor keys.
- In the "Advanced" menu, use the ↑ ↓ cursor keys to select the submenu "Peripheral Configuration".
- Press the "ENTER" key; use "Entrée" on the French keyboard.
- Select the "Diskette Controller" menu using the ↑ ↓ cursor keys.
- Set the "Diskette Controller" menu to "Disabled" using the +/- keys (numeric keypad).
- Press the "Esc" key; use "Echap" on the French keyboard.
- Select the "Security" menu using the ← → cursor keys.
- In the "Security" menu, use the ↑ ↓ cursor keys to select "Set Setup Password".
- Press the "ENTER" key; use "Entrée" on the French keyboard.
- Enter the password "TDRX".
- Press the "ENTER" key twice; use "Entrée" on the French keyboard.
- Enter the password "TDRX" again.

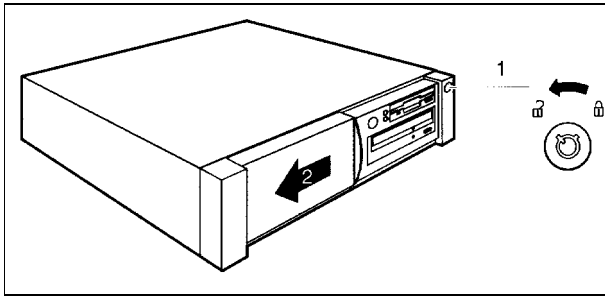


Fig. 1

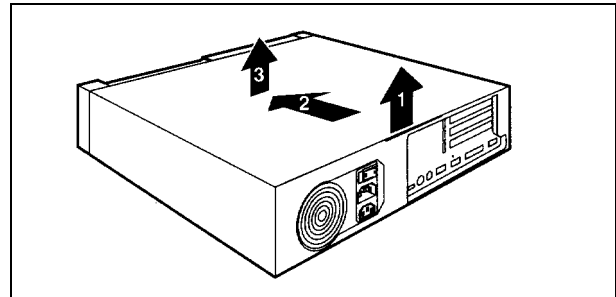


Fig. 2

- Press the "ENTER" key; use "Entrée" on the French keyboard.
- Use the ↑ ↓ cursor keys to select the submenu "Flash Write".
- Set the "Flash Write" menu to "Disabled" using the +/- keys (numeric keypad).
- Press the "Esc" key; use "Echap" on the French keyboard.
- Use the ← → cursor keys to select the "Power" menu.
- Use the ↑ ↓ cursor keys to select the "APM" menu.
- Set the "APM" menu to "Disabled" using the +/- keys (numeric keypad).
- If "Power Management Mode" is not set to "Disabled", use the ↑ ↓ cursor keys to select "Power Management Mode".
- Press the "Esc" key; use "Echap" on the French keyboard.
- Select the "Power" menu using the ← → cursor keys.
- In the "Power" menu, use the ↑ ↓ cursor keys to select the submenu "Power Management Mode".
- Set the "Power Management Mode" menu to "Disabled" using the +/- keys (numeric keypad).
- Press the "Esc" key; use "Echap" on the French keyboard.
- Press the "ENTER" key twice; use "Entrée" on the French keyboard.
- After a moment, the Multiline operating software will display the start-up message: "No Host Communication".
- Switch the system **OFF**.

Opening the operating PC

- Remove all external cables.
- Open the operating PC (1/Fig. 1).
- Slide the drive cover to the left (2/Fig. 1).
- For the upper part of the housing
 - slightly lift the rear edge (1/Fig. 2).
 - slide towards the front (2/Fig. 2).
 - lift it upwards (3/Fig. 2).

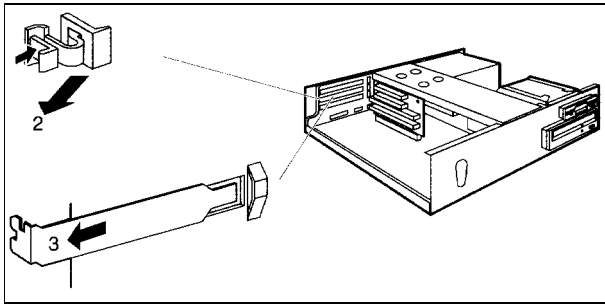


Fig. 3

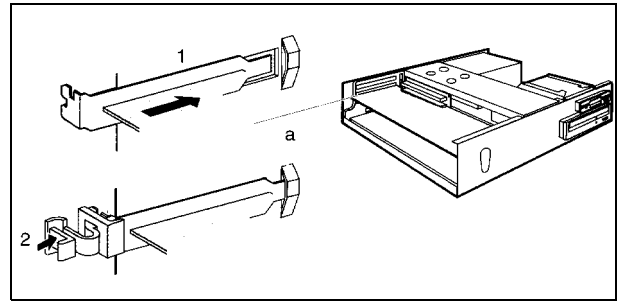


Fig. 4

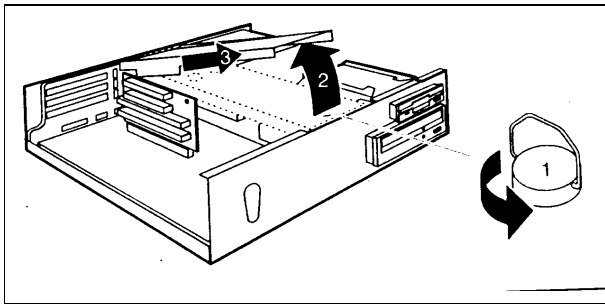


Fig. 5

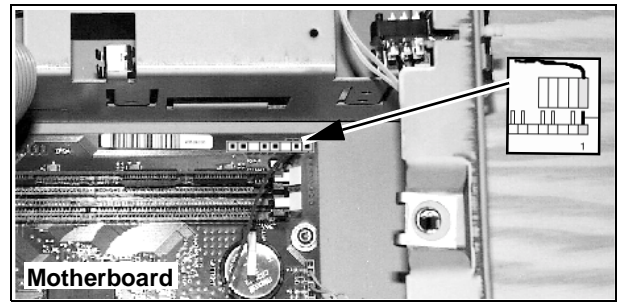


Fig. 6

Installing board D51

- Press on the clamp in the direction of the arrow (1/Fig. 3) and remove it (2/Fig. 3).
- **Pro C5:** Remove the lower rear cover (3/Fig. 3).
- **Pro C6:** Remove the center rear cover (3/Fig. 3).
- Remove the board from the packaging.
- Slide the board horizontally in the direction of the arrow (1/Fig. 4). Ensure that the tip of the angle bracket locks into the guide (a/Fig. 4).
- Press the board into the card slot until it locks into place.
- Lock the bracket in the direction of the arrow in order to secure the board (2/Fig. 4).
- **Pro C5:** Plug the supplied cable into board D51.X3.
- Release the upper support by turning the screw one quarter turn (1/Fig. 5).
- Lift up the support (2/Fig. 5), pull it out in the direction of the arrow (3/Fig. 5) and set it aside.
- Connect the cable according to the diagram (Fig. 6).
- Reinsert the support and secure it.
- **Pro C6:** Plug the wire marked with "D51 X3" at X3 on the board D5.
- Reconnect all cables except the DUEP X51 at PC.
- Switch the system **OFF**.

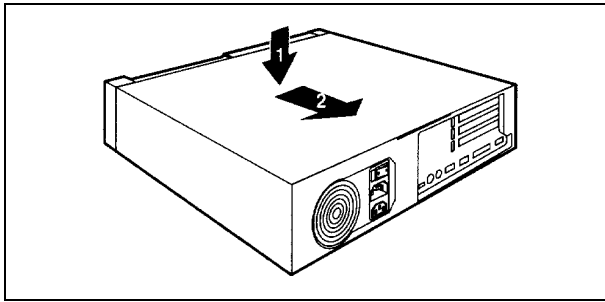


Fig. 7

- Check whether the display on board D51 runs backwards from "9" to "1".
 - The display stops temporarily at "3"
 - "0" = OK
 - "1" = no DUEP
- Switch the system **OFF**.
- Connect the DUEP cable X51.

Closing the operating PC

- For the upper part of the housing:
 - place it on the operating PC in the direction of the arrow (1/Fig. 7).
Ensure that the anchor pins on the inner side of the upper part of the housing lock into the corresponding guides.
 - press in the direction of the arrow (2/Fig. 7), until it noticeably locks into place.
- Push in the drawer; be careful of the cable layout in the operating console.
- Push the operating PC to the back and right in the operating console, so that the ventilation ducts are not blocked.

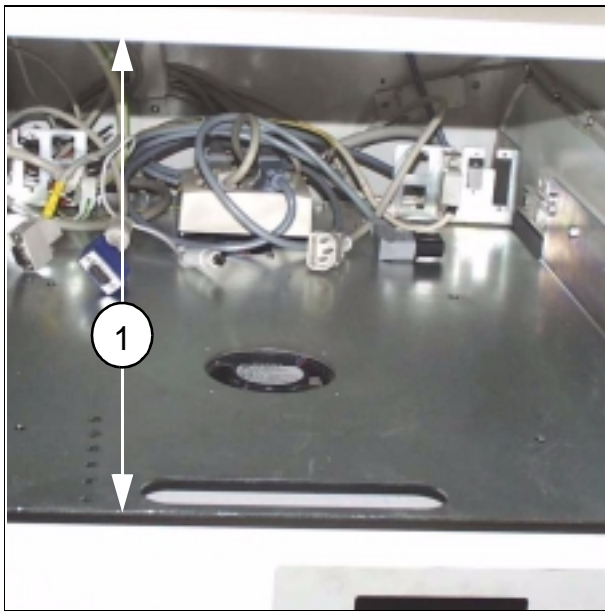


Fig. 1

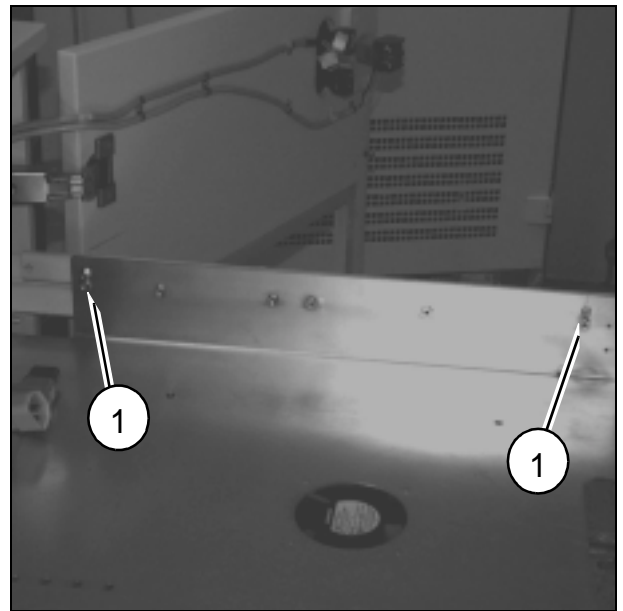


Fig. 2

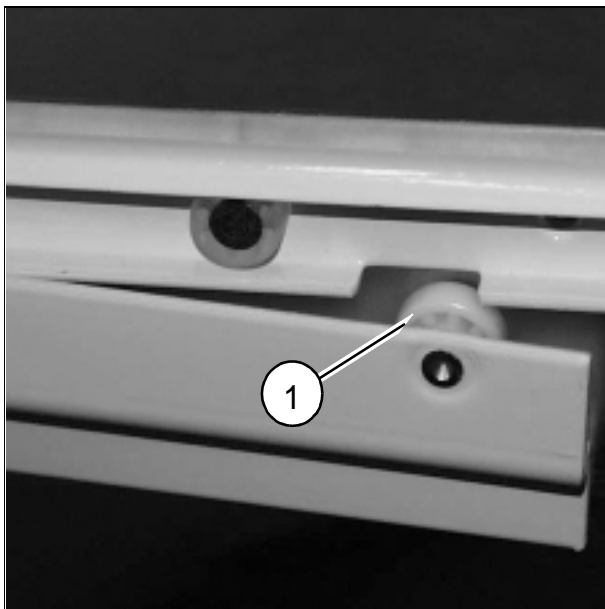


Fig. 3

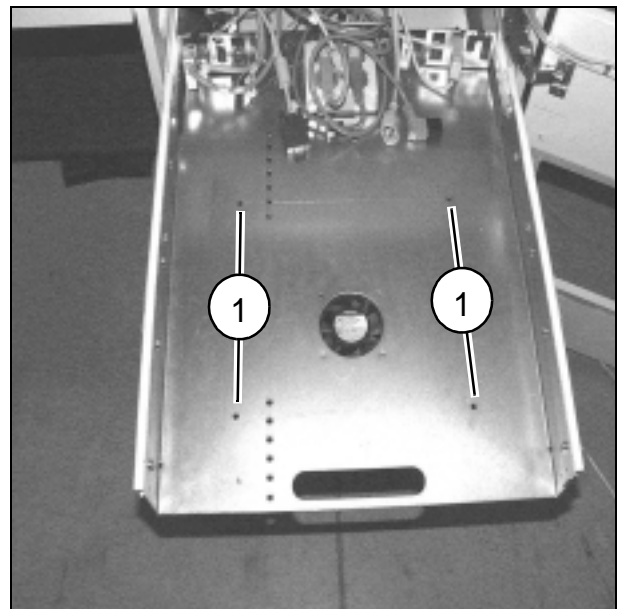


Fig. 4

Mechanical changes in the control console

- The LM control unit must be screwed firmly onto the drawer. If a SCENIC Pro C5/Pro C6 is installed, then remove the existing wooden console.
- Measure the height in the control console (1/Fig. 1). If the dimension is greater than or equal to 21 cm, setting the drawer lower is not required.
- Drill 2 holes (4.2 mm dia.) each 15 mm from the upper edge on both sides of the PC drawer (1/Fig. 2).

- Fasten the drawer to the newly drilled holes (1/Fig. 2). Obtain the M4 nuts locally.
- To be able to reach the rear screws, the drawer must be withdrawn so far until it can be lifted out from the guide roller (1/Fig. 3).
- Drill 4 holes of 5.5 mm diameter in the drawer (1/Fig. 4).
The horizontal spacing of the holes is 277 ± 0.2 mm. Drill the first row of holes 100 mm from the front edge. The distance between the first and second row of holes is 259 mm, i.e. the second row is 359 mm from the front edge of the drawer.

NOTICE

If "Auto-detect Harddisk" is selected unintentionally in the Bios, then the setting values are lost without any query and the hard disk is no longer detected. The values for the hard disk must then be entered manually.

- System **ON**.
- During the display "Press F2 to enter SETUP" press the "F2" key.
- Enter the password "TDRX".
- Press the "ENTER" or "Entrée" key. The CMOS setup menu appears.
- Select the "Main" menu with the cursor keys " $\leftarrow \rightarrow$ ".
- In the "Main" menu select with the cursor keys " $\uparrow \downarrow$ " the "Boot Option" submenu.
- Select the "Boot Sequence" menu with the cursor keys " $\uparrow \downarrow$ ".
- Change "Boot Sequence 1." with the "-" key in the numeric keypad to diskette (diskette is 1; hard disk is 2).
- Press the "Esc" or "Echap" key.
- Select the "Advanced" menu with the cursor keys " $\leftarrow \rightarrow$ ".
- In the "Advanced" menu select with the cursor keys " $\uparrow \downarrow$ " the "Peripheral Configuration" submenu.
- Press the "ENTER" or "Entrée" key.
- In the "Peripheral Configuration" menu select with the cursor keys " $\uparrow \downarrow$ " the "Diskette Controller" menu.
- Set the "Diskette Controller" with the "+/-" keys to "DISABLED".
- Press the "Esc" or "Echap" key twice.
- Press the "ENTER" or "Entrée" key twice.
- After a short time the Multiline operating software startup message appears:
No Host Communication.
- System **OFF**.

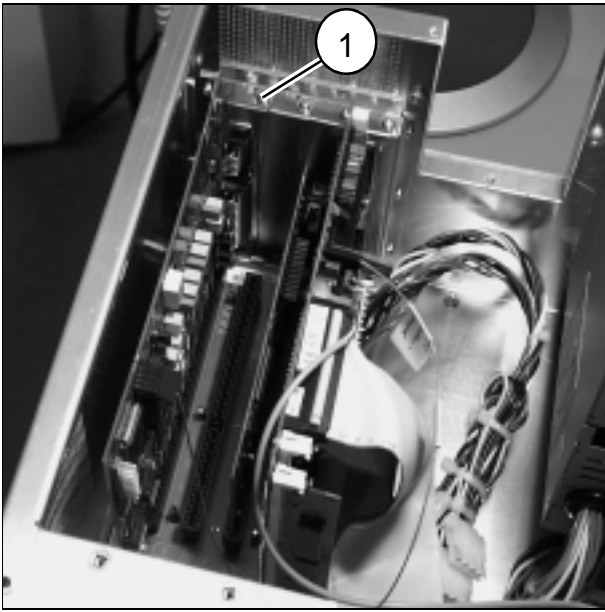


Fig. 5

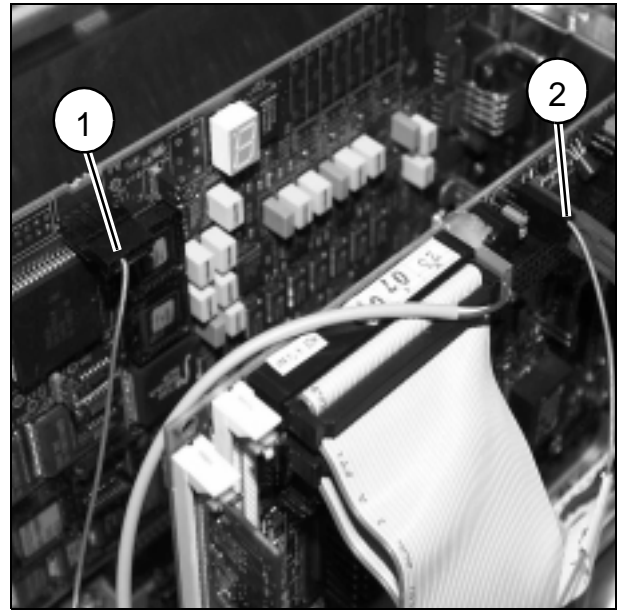


Fig. 6

Open operating PC and install board D51

- Remove all external cables.
- Remove the upper control unit cover.
- Remove the Slot 1 cover plate.
- Install and fasten board D51 in Slot 1 (1/Fig. 5).
- Plug reset cable on board D51.X3 Pin 4 (1/Fig. 6) and on the motherboard at CN4 Pin 1 (2/Fig. 6).
- Reconnect all cables except for DUEP X51 to the PC.
- System **ON**.
- Check that the display on the board D51 runs back from "9" to "1".
 - The display remains for a short time at "3"
 - "0" = everything OK
 - "1" = no DUEP comes
- System **OFF**.
- Connect the DUEP cable X51.

Close the operating PC

- Fasten the upper control unit cover again.
- Fasten the control unit to the drawer.
- Push in the drawer paying attention to the cable run in the console.

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Chap. 0 Cover page, contents and Rev. status newly created

Chap. 1 - Chap. 3 Completely revised

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